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Letter to Editor

Myoepithelial carcinoma of the male breast

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Sir

I read with great interest an article entitled "Myoepithelial carcinoma of the male breast: a rare case report" by Athar *et al*[1]. It is an interesting and unusual case. I have a few observations to add.

The authors have reported 30 cases[1]. English literature search showed approximately 60 cases between the year 1972 and 2012[2]. PUBMED and EMBASE search using word myoepithelial breast cancer from 2013 onward found eight more cases leading to about 68 cases. Papazian *et al*[3] described tumor sizes up to 17 cm with a mean of 3.5 cm and maximum age of 76 years.

The risk factors associated with male breast cancer are family history, testicular disease, obesity, alcohol consumption and infertility[4].

The authors used fine needle aspiration cytology (FNAC) for diagnosis of malignancy[1]. The limitation of FNAC is inability to differentiate between non-invasive and invasive malignant disease. Core needle biopsy is required for definitive histologic diagnosis before surgical intervention. On confirmation, a patient with locally advanced disease should be treated with neoadjuvant chemotherapy. Neoadjuvant chemotherapy will also help to reduce early micrometastases[4].

The authors also described a close resection margin as the best predictor of local recurrence[1]. Pathological staging can be done to plan adjuvant therapy. Immunohistochemistry showed positive staining for S-100 protein, Vimentin, smooth muscle actin (SMA) and negative staining for estrogen and progesterone. Given their weak degree of differentiation, myoepithelial/metaplastic carcinomas are best examined with a panel that includes all antibodies to broad-spectrum keratins, all high-molecular-weight keratins, p63, as well as antibodies to myofilaments[5]. According to WHO Classification, a few important markers are missing. Most myoepithelial cancer of the breast is triple negative; HER-2 status needs to be mentioned.

In conclusion, myoepithelial breast cancer represents a rare group of cancers whose prognosis is not clear. Recurrence appears to be related to the adequacy of local excision. The pattern of recurrence is usually local followed by metastasis to the lungs and to other sites. The surgical treatment of myoepithelial breast cancer has largely paralleled that of infiltrating ductal carcinoma. Adjuvant radiation should be considered as a part of multimodality management irrespective of the type of surgery performed. Hormonal treatment is just as ineffective as chemotherapy, and generally, has no role in the management of patients with myoepithelial breast cancer. Clinical trials participation is needed to investigate agents targeting PI3K and EMT pathways (high expression in myoepithelial breast cancer) as potential new therapies.

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